

Specification Amendments

Pursuant to revised 37 CFR 1.121, amendments must be made by presenting a replacement paragraph or section marked up to show changes made relative to the immediate prior version. Two versions (a clean version and a marked up version) of each replacement paragraph or section are no longer required. No new matter has been added.

On page 2, line 6 through line 20, the following replacement paragraph is presented:

During an electrical storm, the electrostatic field will induce a charge on both the tank and the contained product. Lightning dissipaters will discharge both the tank and the product for most situations. However, if the tank has a large diameter, the storm cell contains an unusually large charge, the product near the center will not be completely discharged. If the shunts are not in perfect contact with the tank wall, the "bound charge" will create an arc when that storm cell is discharged by a nearby strike. Refer to the American Petroleum Institute (API) Recommended Practices RP2003 for details on the Bound Charge/Secondary Arc. Some companies have tried to use long wires that extend from the top of the tank down to the center of the floating roof. The problem with this technique is that the impedance of the wire is far too high to react within the time available to discharge a bound charge (about one microsecond for the initial surge of current flow to rise to the peak; however the current flow lasts for an average of 20 microseconds). The average impedance of these connections is between 150 and ~~250 Ohms~~500 ohms at lightning frequencies depending on tank diameter.

On page 6, line 10 through line 19, the following replacement paragraph is presented:

Referring next to FIGS. 3, 4 the reel 1 has bolts 31 connecting the base 4 of the reel 1 to the ~~tank~~cylindrical wall 21 of tank 20. The fluid/liquid 22 which may be oil floats the floating roof 23. As the floating roof 23 moves up and down it is centered in the cylindrical wall 21 of tank 21-20 by a known scissor assembly 33. A known fumes barrier 34 rides along the inside of the cylindrical wall 21 of tank 21-20 as does the scissor assembly 33. A known grounding shunt

35 also rides along the inside of the cylindrical wall 21 of tank ~~24~~20, but can lose its grounding connection as debris builds up on the inside of the tank.